# Supplementary Material: the Efficacy of Lidocaine in Laryngospasm Prevention in Pediatric Surgery: a Network Meta-analysis

Xiaojing Qi[1,#], Zhoupeng Lai[1,#], Si Li[1], Xiaochen Liu[1], Zhongxing Wang[2,*], Wulin Tan[2,*]

[1]Zhongshan School of Medicine, Sun Yat-sen University, Guangzhou 510080, China.

[2]Department of Anesthesiology, The First Affiliated Hospital, Sun Yat-sen University, Guangzhou 510080, China.

[*]Zhongxing Wang (Email: doctorwzx@126.com) and Wulin Tan (Email: tanwulin1986@163.com) are the corresponding authors.

[#]These authors contributed equally to this work and should be considered co-first authors.

Correspondence and requests for materials should be addressed to Zhoupeng Lai (Email: laizhoup@mail2.sysu.edu.cn) or Zhongxing Wang (Email: doctorwzx@126.com).

Table S1: Results of meta-regression analysis to determine whether covariates had a significant effect.

| **Covariate** | **P value** | |
|---|---|---|
| | Univariate meta-regression | Multivariate meta-regression |
| **Surgery** | 0.152 | 0.262 |
| **Anesthetic gas** | 0.617 | 0.542 |
| **Airway device** | 0.886 | 0.209 |
| **Route of administration** | 0.762 | 0.385 |
| **Timing of administration** | 0.762 | CN |
| **Definition of laryngospasm** | 0.306/CN/ 0.877 | 0.167/CN/ 0.254 |
| **Blinding of outcome assessment** | 0.362 | 0.269 |

P＜0.05 means significant. Abbreviations: CN, collinearity.

Table S2: Probability for each alternative to be at each rank given the analysis model and data.

| **Drug** | **Rank1** | **Rank2** | **Rank3** |
|---|---|---|---|
| **Intravenous lidocaine** | 0.02 | 0.75 | 0.23 |
| **Placebo** | 0.98 | 0.02 | 0.00 |
| **Topical lidocaine** | 0.00 | 0.23 | 0.77 |

Rank 1 is worst, Rank 3 is best. The bigger number in the rank, the higher probability to be better in that rank.

Table S3: The effects of the laryngospasm interventions on the laryngospasm incidence in inconsistency model.

| | | |
|---|---|---|
| Intravenous lidocaine | 2.33 (0.33, 27.75) | **0.22 (0.04, 0.84)** |
| 0.65 (0.18, 2.23) | Topical lidocaine | **0.16 (0.02, 0.75)** |
| **0.16 (0.05, 0.39)** | **0.26 (0.08, 0.61)** | Placebo |

Data was listed as RR with 95% CI. Effect estimates from the network meta-analysis including all the 13 studies in the inconsistency model occupy the top right part of the diagram, and the estimates with 2 studies excluded occupy the bottom left part of the diagram. The diagonal corresponds to the comparison. Significant results are in bold. The data should be read from left to right.